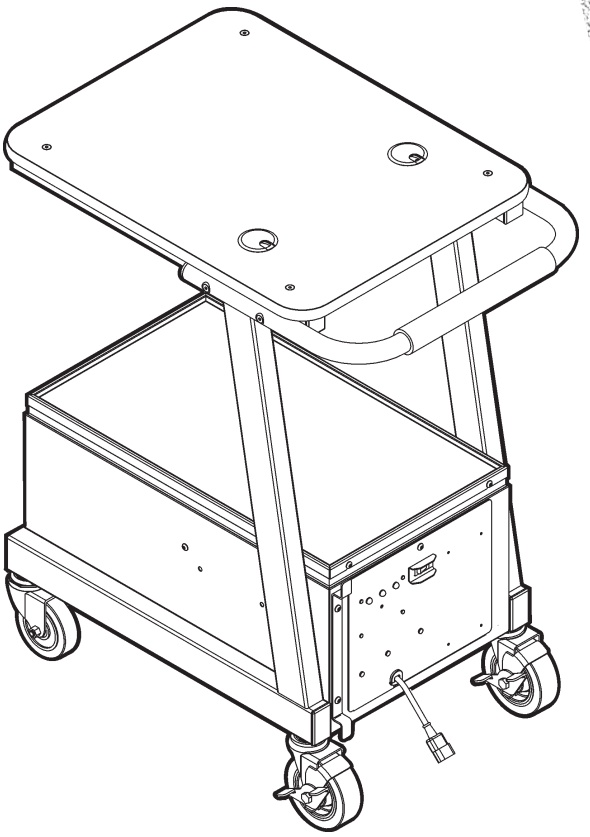
Operating & Maintenance Instructions

Monarch™ 9878™ Mobile Work Station (MWS™)



AVERY DENNISON

TC9878OI Rev. AD 12/07

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CANADIAN D.O.C. WARNING

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Réglement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

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Avery Dennison Printer Systems Division
170 Monarch Lane
Miamisburg, OH 45342

Paxar Barcode Product Limited Warranty

Thank you for purchasing a Monarch™ 9878™ Mobile WorkStation. Paxar warrants that your product will be free from defects in material and workmanship for a period of one (1) year from the date of shipment by Paxar. Please read this warranty very carefully. THIS WARRANTY IS A LIMITED WARRANTY AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Parts - Paxar will provide new or remanufactured parts, free of charge, to correct defects in material and workmanship for the product(s) covered by the limited warranty during the one (1) year parts warranty period. During the first sixty (60) days of this warranty period, labor and travel by a Paxar Representative is also included. Labor and travel will be charged after the initial sixty (60) days. Replacement parts are warranted for ninety (90) days from the date installed and labor is warranted for thirty (30) days from the date of service.
Support Agreements are also available.

Shipping - The customer is responsible for inbound transportation charges and Paxar is responsible for return transportation charges (via ground) to correct defects in material and workmanship during the limited warranty period.

Packaging - Products returned shall be packaged in the original packaging and shipping container or comparable container. In the event the product is not packaged properly or if shipping damage is evident, Paxar will not accept the printer for service under warranty. Products received in unsuitable containers will be returned in Paxar-approved packaging at the customer's expense.

Thermal Printhead Warranty - The thermal printhead is covered by a prorated limited warranty of six (6) months or one million (1,000,000) inches of use, whichever occurs first. Physical damage to the printhead is not covered by the limited warranty.

Battery and Cable Warranty - Batteries and cables are covered by a prorated limited warranty of three (3) months from the date of shipment. Physical damage to the battery(ies) or cable(s) is (are) not covered by the limited warranty.

Consumables - The product limited warranty does not include or cover consumables or sundry items such as ribbons, tags, labels, knives, batteries, cables or thermal printheads (see above battery, cable, and thermal printhead warranty).

Use of Supplies - Only genuine Paxar or Monarch supplies are recommended for use in Paxar products. This limited warranty does not cover service required as a result of the use of non-Paxar supplies.

Host Communication - Service required to develop or correct on-line host communications, including the use of non-Paxar communications cables, is not covered by the product warranty.

Operating Instructions - Proper operation of the product requires the user to read and follow the operating instructions. The limited warranty does not cover service that is required as a result of operator error and or failure to read and follow the documentation included with the product.

Installation and Training - Installation and training of the operators is a professional service that is available on a time and material basis. Installation and training is not covered by the limited warranty.

Exclusions - This limited warranty covers defects in material and workmanship only and does not cover damage to batteries and cables or caused by accident, abuse, violence, acts of God or use of non-Paxar or non-Monarch supplies, or those not meeting the Paxar specifications.
Paxar shall not be liable for direct, indirect, or consequential damages, costs, expenses, lost profits, or lost savings resulting from the use, operation, or malfunction of the verifier.

This limited warranty is valid only in the United States of America.

This limited warranty is the only warranty on which the customer can rely. Paxar reserves the right to make changes in the products, programs and their availability at any time and without notice.

This warranty is void if the product is altered or repaired by anyone except a Paxar service representative or contrary to the instructions provided by Paxar.

To Initiate a Warranty Claim The customer must follow the steps below in order to make a warranty claim under the limited warranty:

1. **Call (800) 543-6650** in order to report your problem to our technical support center.
2. A Paxar technical support specialist will work with you to attempt to resolve the problem by telephone.
3. If telephone resolution of your problem is unsuccessful, the technical specialist will issue an incident # for you to return your product prepaid, for warranty repair, subject to the terms of the limited warranty above.

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GETTING STARTED

1

Use the Monarch 9878 Compact Mobile Work Station (MWS) for mobile printing either in-store or in retail centers.

The in-store models have only one battery (12VDC) allowing you to scan and mark items directly on the sales floor. The two-battery (24VDC) models provide more power for larger printers. The Compact MWS models are light, easy to roll and turn.

You see references to voltages throughout this manual with either (one battery) or (two batteries) after them, so you know which voltage applies to your MWS.

Using This Manual

Following is a summary of the contents of this manual.

	Chapter	Contents
1	Getting Started	Contains information about the batteries and MWS.
2	About the MWS	Describes how to connect power cords and use additional devices on the MWS.
3	Charging the Batteries	Describes how to charge the batteries.
4	Power Options	Describes battery power and battery safety issues.
5	Printing	Explains how to print supplies from a printer on the MWS.
A	Specifications	Technical specifications about the MWS.

Safety Precautions

Following symbols are used in this manual to show importance of using the MWS safely.

WARNING	Failure to follow the guidelines marked with this symbol could result in serious personal injury or death.
CAUTION	Failure to follow the guidelines marked with this symbol could result in minor personal injury or product damage.
	Caution, risk of electrical shock. Also known as the "High Voltage" symbol.

Audience

This manual is designed for the person using the MWS for mobile printing applications.

After you receive the MWS, you should have all the necessary parts, including the batteries and charger. **Check inside ALL packaging material**. Make sure you do not throw away any pieces. Keep the boxes and packaging material in case the MWS ever needs repair.

Ordering Programmer's Manuals

The *Packet Reference Manual*, which describes how to create format and batch packets for printing labels, how to configure a Monarch® printer online, and how to perform other advanced techniques is available from our Web site.

Calling Service

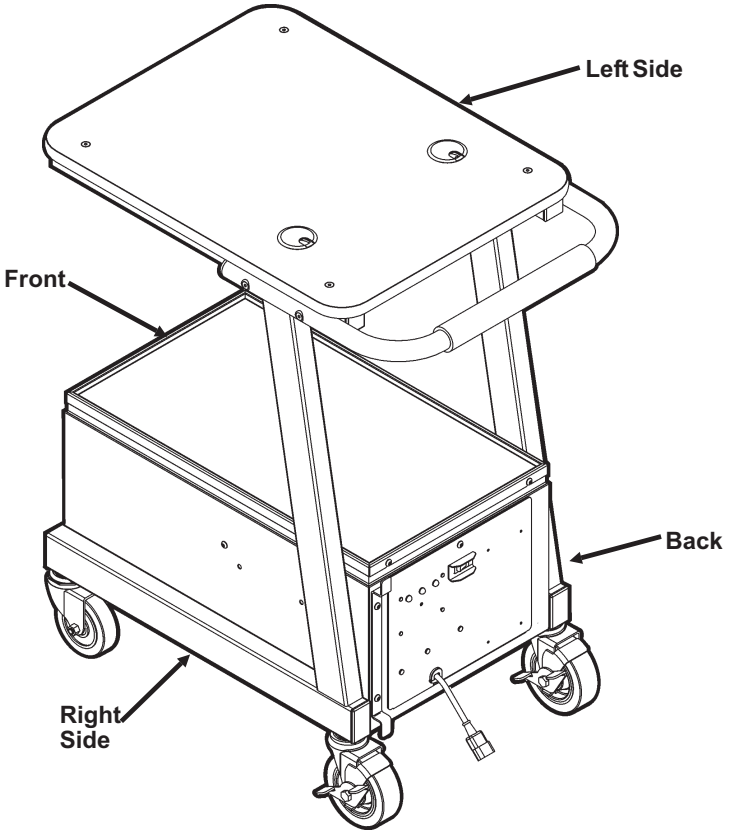
If these solutions do not work or you have a problem not listed, see your System Administrator or call Service at the number listed on the back of this manual.

ABOUT THE MWS

2

The Mobile Work Station is shipped assembled. Use this chapter to verify the cable connections.

Check inside ALL packaging material. Make sure you do not throw away any pieces. Before using the MWS, remove all packing material from inside the power cabinet.



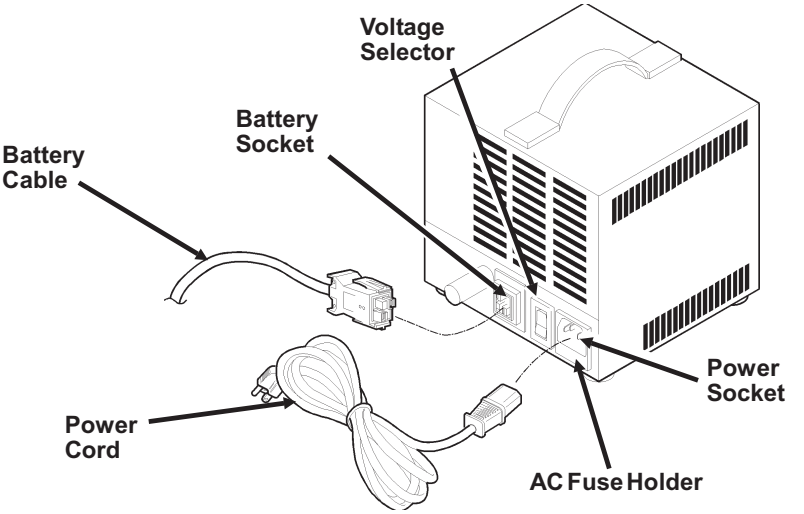
Connecting the Cables

Make sure the charger and battery cables, and power cord are properly connected. Follow the steps below if you need to connect the cables. Power cords are not included with International models.

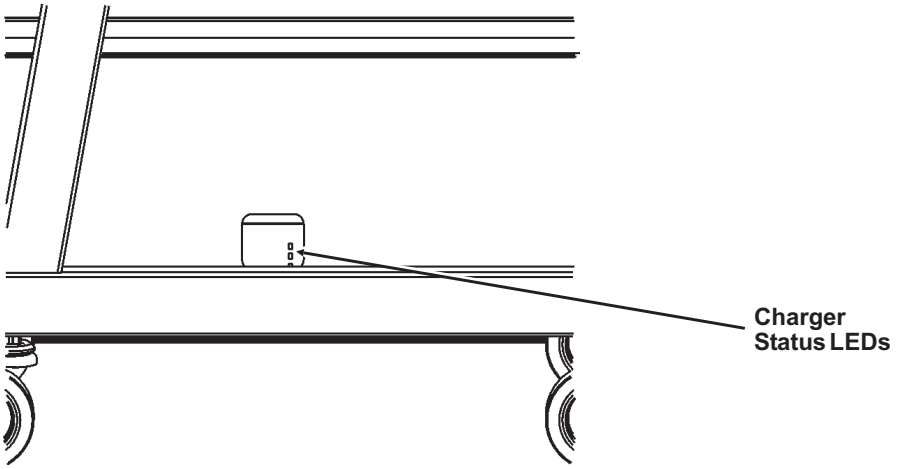
WARNING

Only qualified service personnel may install or replace the batteries.

1. Using a 5/32-inch (4 mm) Hex key (wrench), open and remove the lid for the power cabinet.
2. Make sure the power cord (packaged with the battery charger) is connected to the power socket on the back of the charger.
3. Make sure the battery cable is connected to the socket on the back of the charger. The cable is keyed.
4. Make sure the voltage selector switch on the back of the charger is set correctly (115V in U.S.).

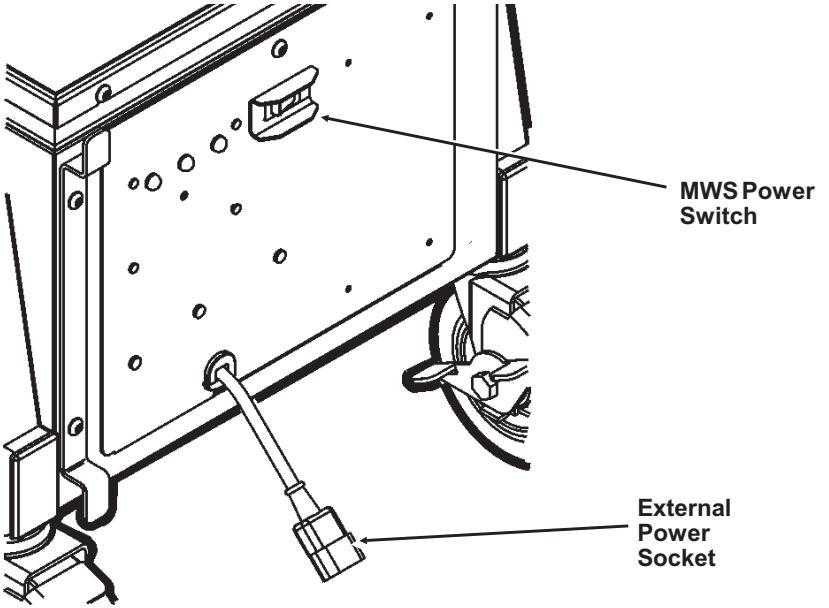


5. The charger's status lights should be visible through the cut-out in the left-side panel. See Chapter 3, "Changing the Batteries" for more information.



6. If not already connected, plug the charger's power cord into the AC power outlet inside the power cabinet.

7. Plug the heavy-duty power cord into the external power socket on the outside panel of the MWS.



Do Not plug the external power cord into a wall outlet until you are ready to charge the battery. See Chapter 3, "Charging the Batteries" for important battery information.

8. Using a 5/32-inch (4 mm) Hex key, replace the lid for the power cabinet.

You may need a power strip inside the power cabinet to provide AC power to more than one device. Do Not store anything else inside the power cabinet. The power cabinet must remain secured at all times and only opened by qualified service personnel.

Connecting a Printer

Contact your Monarch Representative for instructions on attaching a Monarch® printer to the MWS.

Using other Monarch® Printers

You can connect Monarch® 9462™ and Monarch® 9465™ chargers to the MWS. This allows you to keep the chargers close to where you are working on the sales floor.

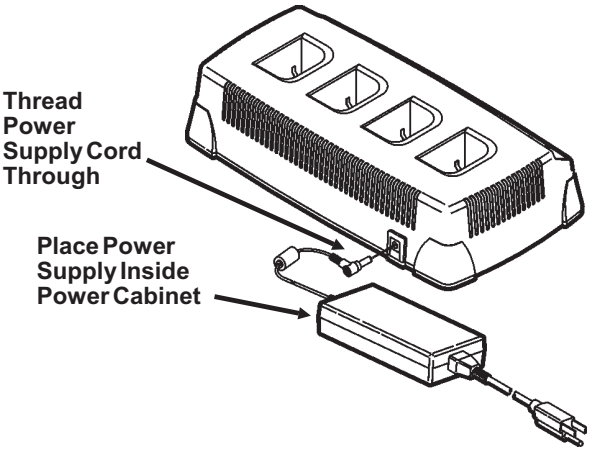
The following printers are supported with these chargers:

- Monarch® Sierra Sport2™ (9460™)
- Monarch® Sierra Sport3™ (9433™)
- Monarch® Pathfinder® Ultra® Silver (6032™)
- Monarch® Pathfinder® Ultra® Platinum (6039™)

Additionally, a laptop or handheld computer (terminal) can be powered on the MWS.

Connecting the 9462/9465 Charger

1. Place the charger on the top or bottom shelf.
2. Using a 5/32-inch (4 mm) Hex key (wrench), open and remove the lid for the power cabinet.
3. Place the charger's power supply inside the power cabinet.



4. Thread the end of the power supply's cord into the cable tube.
5. Connect the power supply to the charger's base.
6. Connect the power supply's cord to AC power outlet inside the power cabinet.
7. Using a 5/32-inch (4 mm) Hex key, replace the lid for the power cabinet.
8. See Chapter 3, "Charging the Batteries" for more information. For more information about using your 9462 or 9465 charger, refer to the *Operating Instructions* provided with the charger.

Using Other Printers

Contact your Monarch Representative to attach non-Monarch printers to the MWS.

CHARGING THE BATTERIES 3

This chapter describes how to

charge the batteries

change the fuses.

The battery charger for the MWS is a fully automatic, maintenance-free charger.

To charge the battery, plug the MWS AC power cord into a grounded outlet. Charge the battery:

before using the MWS for the first time (charge it for 5 hours)

when the MWS beeps (see “Battery Life” for indications of low battery conditions)

when the MWS is not in use.

When the MWS is not in use, always leave the battery charger plugged in and charging. The battery charger is “intelligent;” it monitors the battery condition and does not overcharge the lead acid battery. Battery life is extended by frequent charging.

Recycle batteries in accordance with local State, RBRC guidelines, and the manufacturer’s instructions.

CAUTION

Only qualified service personnel may install or replace the 12-volt sealed lead-acid non-venting battery. **When replacing a battery, you must use the same type of battery from the same manufacturer** (as the ones provided with the MWS). On 24VDC models, BOTH batteries MUST be replaced at the same time to maintain capacity match.

Important Charging Information

WARNING

DANGER! RISK OF ELECTRICAL AND FIRE HAZARD. CERTAIN ACTIONS MAY RESULT IN DEATH, SERIOUS INJURY, SHOCK, OR BURNS.

- **Do Not** disassemble the battery charger.
- **Do Not** operate the charger if it has been dropped or otherwise damaged in any way. **Do Not** spill liquids into the charger, such as water or soft drinks.
- **Do Not** expose the battery charger to rain or snow. Never charge a frozen battery. The colder the battery, the longer it takes to charge.
- Plug only into a three-prong grounded outlet. **Do Not** alter the AC power cord or plug provided. **Do Not** operate the battery charger with a damaged cord or plug.
- **Do Not** let the battery go for a long period in a partly discharged state; keep it charged.
- If using an extension cord, you must use 18 gauge or heavier for lengths up to 50 feet, or 16 gauge or heavier for lengths up to 100 feet. Use of improper extension cord could cause fire and/or electric shock. Use an extension cord bearing the UL listing mark and rated for four Amperes or greater current capacity.
- Pull on the plug rather than the cord when disconnecting the battery charger. Locate the cords where they will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- The battery must be charged when the total voltage is less than 10.5V (one battery) or 21V (two batteries). See “Battery Life,” for more information.
- **Do Not** pry open the sealed lead-acid non-venting battery to add water.

About the Battery Charger

A cut-out in the left-side panel allows viewing of the charger's status LEDs.

Store the charger in a dry area not subject to prolonged sub-zero temperatures.

The battery charger is "intelligent;" it monitors the batteries condition and does not overcharge the batteries. It is recommended to leave the battery charger plugged in and charging when the MWS is not in use. Battery life is extended by frequent charging.

The charger's Power On light is on when all the connections are correct.

The charger's Green Full Charge light is on when the battery is finished charging. Leaving the charger connected to the battery and the charger plugged in prevents the battery from self-discharging.

Important Battery Safety Information

Never smoke or allow a spark or flame in vicinity of battery.

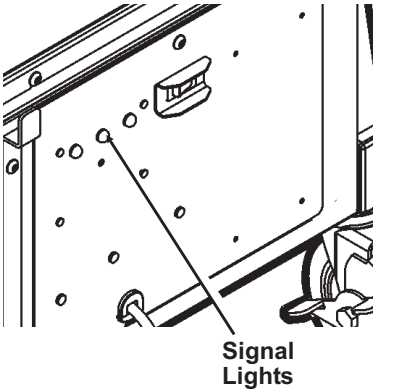
Do Not drop a metal tool on the battery. The resulting spark or short-circuit on the battery of other electrical part may cause an explosion.

Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-acid battery produces a short-circuit current high enough to weld a ring to metal, causing a severe burn.

Battery Life

If you leave the battery charger plugged in and constantly charging **when the MWS is not in use**, the battery life is maximized for the application. The charger will not overcharge the batteries.

The MWS has Battery Status Signal Lights to indicate the battery status as follows. The following voltages are nominal (not exact) and should be used for reference.



Flashing Red/ Orange — Warning! The batteries need immediate charging. Voltage is below 11.25V (one battery) or 22.5V (two batteries). The MWS beeps (10 seconds beep on and five minutes no beep) to alert you of this condition.

Flashing Yellow — Caution! The batteries are getting low. The voltage is between 11.25V and 11.75V (one battery) or 22.5V and 23.5V (two batteries).

Flashing Green — Go! The voltage is above 11.75V (one battery) or 23.5V (two batteries). The batteries are charged to approximately 75% or better capacity.

Immediately plug the power cord into the wall socket and charge the batteries when you hear a beep/chirp and the signal light flashes red/orange.

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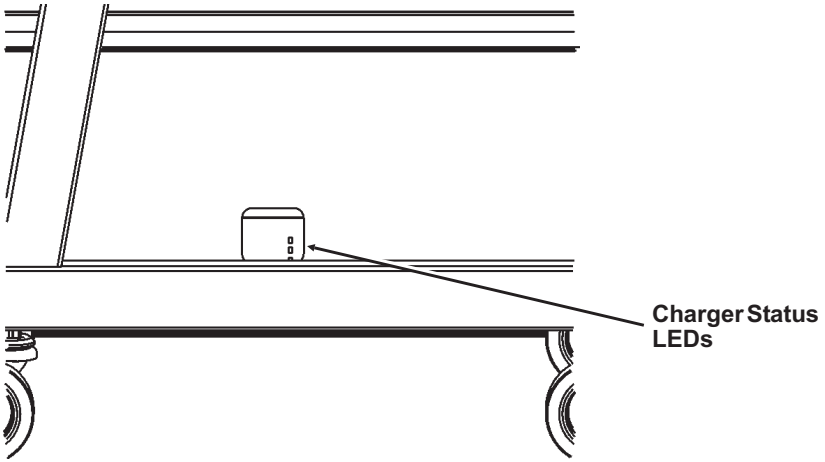
12 Volt switch levels = +/- 0.15V; 24 Volt switch levels = +/- 0.25V

Use the following table to read the charger's LEDs (indicator lights).



LED	Status
8-10A **6-8A** **4-6A** **2-4A**	The red lights indicate the charging rate. Deeply discharged batteries start charging at the 8-10A rate. As the batteries charge, the charging rate decreases from 8-10A through 2-4A.
CHARGE	The red light turns on when the charger is connected to the batteries and the charger has AC power.
80%	Yellow light turns on when the batteries are charged to 80% capacity. The batteries charge to 80 percent in approximately four hours and can be used at this point.
READY	Green light turns on when the batteries are charged to full capacity. The batteries charge to full capacity in approximately three hours *from 80 percent.* (Total charging time is approximately seven hours.)

Frequency of Charging/Run-Time Guidelines

The following information is approximate and should be used for reference. Many factors effect an individual battery's performance:

- the presence of auxiliary devices.
- the printing rate (including printhead contrast and number of labels per day).
- the complexity of your printed formats.
- the environment (temperature and humidity in your facility).

In the information below, "typical conditions" are defined as follows:

one Monarch® printer printing standard compliance 4x6 labels (5-10 minutes of actual printing per hour), no auxiliary devices attached to the MWS, and standard environmental conditions (no excessive heat or humidity).

- When using the 12VDC MWS under typical conditions, the battery may last up to 20 to 50 hours before recharging is necessary.
- When using the 24VDC MWS or the 12VDC converter option under typical conditions, the batteries may last up to 50 to 100 hours before recharging is necessary.
- When using the 24VDC/115VAC MWS with an AC Power Inverter under typical conditions, the batteries may last up to 48 hours before recharging is necessary.
- When using the 12VDC/115VAC MWS with an AC Power Inverter under typical conditions, the batteries may last up to 24 hours before recharging is necessary.
- When you notice the batteries need to be charged more frequently, order replacement batteries. **On 24VDC models, BOTH batteries MUST be replaced at the same time to maintain capacity match.**

For example, if you had 60 hours of use between charges and now have 30 hours of use between charges, this is an indication that the batteries need replacing.

The performance of your batteries varies depending on the number of printers and/or auxiliary devices, such as a scanner or terminal, attached to the MWS. Frequent charging of the batteries is recommended.

Changing Fuses

There are two fuses for the MWS: one connecting the batteries/inverters and one from BAT2 to the terminal block. Size of the fuses varies depending on the power option selected when you ordered the MWS. See Chapter 4, “Power Options,” for more information.

WARNING

You may observe a spark when you make this connection. Do not make this connection in the presence of Flammable fumes, explosion or fire may result.

The power switch **on the front of the MWS** must be off while changing fuses. (The status light near the power switch should be OFF.)

1. Turn off the MWS power supply and unplug the power cord.
2. Using a 5/32-inch (4 mm) Hex key (wrench), open and remove the lid for the power cabinet.
3. Unplug the fuses from the fuse holders.

4. Insert the proper voltage fuse in each fuse holder. Each fuse is labeled as **20A**, **30A**, **50A**, or **80A**.

Fuse	Description
F1	20 A ATO (from BAT2 to the terminal block)
F2	20 A ATO (connects the batteries only for the DC power option) 30 A ATO (for the 300W, 24VDC Power Inverter option) 50 A Maxifuse (for 300W, 12VDC Power Inverter option) 80 A Maxifuse (for 1000W, 24VDC Power Inverter option)

5. Using a 5/32-inch (4 mm) Hex key, replace the lid for the power cabinet.

About the Charger's Fuse

The charger (12V or 24V) inside the MWS also has a fuse:
T4A 125V fuse (for 12V chargers) or T6A 125V fuse (for 24V chargers).

POWER OPTIONS

4

Your MWS was ordered with **one** of these power options:

12VDC/115VAC 300W AC Power Inverter

24VDC/DC/DC Converter (12VDC out)

24VDC/115VAC 300W AC Power Inverter

24VDC/115VAC 1000W AC Power Inverter

Make sure all packing material is removed from the power cabinet before use.

Keep the MWS power switch ON when in use. If the MWS will be unused for extended periods of time, turn OFF the MWS power switch.

The MWS power switch controls the power to all printers. If using more than one printer on the MWS, manually turn OFF each printer's power switch.

About the Inverter

The power inverter is only 115V. **The AC power inverter uses battery power, which may require more frequent charging of the batteries.**

The AC power inverter provides 115V power to peripherals, such as a PC, scanner, charger, or printer.

WARNINGS

This equipment contains components which can produce arcs or sparks. To prevent fire or explosion, do not install near Flammable materials or in locations that require ignition-protected equipment (including gasoline-powered machinery, fuel tanks, joints, or fittings).

The inverter is designed to operate from a battery. **Performance cannot be guaranteed and damage can result when the inverter is used without the batteries installed!**

Even if the MWS is not connected to an outlet, power is still supplied to the inverter from the batteries and charger. Therefore, **all harnesses are always "live."**

You may observe a spark when you make this connection. Do not make this connection in the presence of Flammable fumes, explosion or fire may result. Operation of the inverter without a proper ground connection may result in an electrical safety hazard.

Remove **ALL** fuses from the harnesses before connecting **ANY** harnesses to the batteries or switch.

You may need a UL/CSA listed power strip inside the power cabinet to provide AC power to more than one device. **Do Not** store anything else inside the power cabinet. The power cabinet must remain secured at all times and only opened by qualified service personnel.

300W/1000W Inverter LED Status

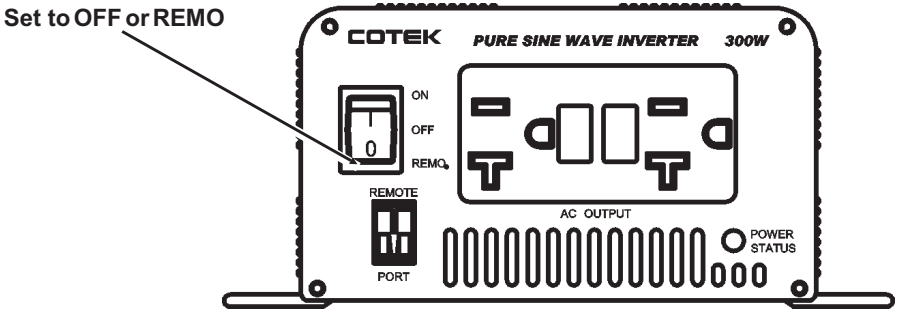
Display Input Voltage

LED Status	DC 12V	DC 24VC
GREEN (solid)	AC Power OK	AC Power OK
RED Blink (fast) Over-voltage protect	15.3	30.6
RED Blink (slow) under-voltage protect	10.5	21.0
RED Blink (intermittent) over-temperature protect	–	–
RED (solid) over-load protect	>400W	>400W / 960W

Using the Remote Switch

The MWS On/Off switch should be used as a remote switch to turn the inverter ON or OFF. If ordered with the inverter option, your MWS comes preset to use the remote switch. However, if you notice the inverter stays ON all the time, check this setting. The switch may have been bumped while replacing a battery.

1. Using a 5/32-inch (4 mm) Hex key (wrench), open and remove the lid for the power cabinet.
2. On the inverter's front panel, set the ON/OFF/REMO switch to OFF or REMO (remote).



300 Watt Inverter

3. Make sure the switch on the MWS electrical panel is OFF.
4. Using a 5/32-inch (4 mm) Hex key, replace the lid for the power cabinet.

PRINTING

5

To print supplies from a Monarch® 9825 or 9855 printer on the MWS:

1. Turn on the MWS power supply and turn on the printer.

   You will see

PRINT MODE
Ready B

2. Press **Feed/Cut** to calibrate the supply. You are now ready to print.

To conserve the battery, make sure the MWS power switch is turned OFF when not in use OR when charging the batteries. For optimal (shortest) charging time, turn off the MWS and printer while charging.

If you need to finish a batch, you can print while charging, as long as the batteries are not too depleted. However, printing while charging is **not** recommended on a frequent basis.

If the printer will be unused for extended periods of time, we recommend leaving the printhead unlatched.

If the printer's green power light blinks, you need to recharge the battery. There is a small reserve of battery power to continue printing after the green power light begins blinking.

You must recharge the battery when you see error 762 or "Battery Dead" on the display because the printer is in a "lock-up" condition and does not print until the battery is recharged.

The printer may slow down if the battery voltage drops below a certain level. The printer continues to print at the reduced speed until the batteries are charged and the printer is turned off and then back on. See "Battery Life" in Chapter 3 for more information about charging the batteries.

About Sleep Mode

If the Monarch® 9800 printer is inactive for longer than 30 seconds, the printer goes into sleep mode to conserve battery power. While in sleep mode, the display backlight is turned off to conserve battery power. Once the printer “wakes up,” the backlight turns on.

To “wake up” the printer, press any button on the control panel. The buttons are active during sleep mode, so if you press **Escape/Clear**, the printer “wakes up” and you enter the offline menu mode. You can also send any data to the printer to wake it up. You do not lose any data sent to the printer during sleep mode.

SPECIFICATIONS

A

Mobile Work Station (MWS)

Height:	Approximately 37 inches (940 mm) depending on selected options
Top Width:	20 inches (508 mm)
Wheel Base:	18.5 inches (470 mm)
Length:	31.5 inches (800 mm)
Power Cabinet Lower Shelf:	15 inches wide x 25.5 inches long (381 mm x 648 mm)
Top Shelf : (Solid Top)	20 inches wide x 26 inches long (508 mm x 660 mm)
Weight:	Approximately 125 lbs (57 kg) depending on selected options
Operating Limits	40 F to 95 F (5 C to 43 C) with thermal transfer supplies
Storage:	15 F to 120 F (-9 C to 49 C)
Humidity:	5% to 90% non-condensing

Batteries

(1) 12-volt, 55 amp-hours, deep cycle battery

(2) 12-volt, 55 amp-hours, deep cycle batteries

Sealed lead-acid, non-venting (safety venting only), no transportation restrictions

Shelf Life/Charge Retention:

1 month	97%
3 months	91%
6 months	85%

Cycle Use:

100% depth of discharge	approx. 250 cycles
50% depth of discharge	approx. 550 cycles
30% depth of discharge	approx. 1200 cycles

Cycle Life is approximate and many factors effect an individual battery's performance.

Chargers

12VDC Models

Input 117VAC +/- 10% (60Hz), 220 VA (Volt Amps)
IEC connection

Output 12 Volts, 10 Amps DC

Reverse polarity and short circuit-proof

Temperature compensated

Low voltage start (total battery voltage must be greater than 1V to charge)

3-Stage charging for deep cycle 12-volt lead-acid battery

24VDC Models

Input	117VAC 60Hz, 320 VA (Volt Amps) IEC connection
Output	24 Volts, 8 Amps DC

Reverse polarity and short circuit-proof

Temperature compensated

Low voltage start (greater than 1V to charge)

3-Stage charging for deep cycle 12-volt lead-acid battery (2 in series)

Usw onlyNRTL-listed (National Recognized testing Lab) accessories.

300W Inverter

Input Voltage	10.5 to 15VDC (12V) 21 to 30VDC (24V)
No Load Current	0.26A (12V) 0.23A (24V)
Frequency	50/60 Hz ± 0.3%
Output Voltage	110VAC ± 5%
Output Power	300W RMS (continuous)
Surge Power	400W RMS (1 second)
Output Waveform	Pure Sine Wave (THD <4%)
Efficiency (Full Load / Max.)	72% (12V) 78% (24V)
Operating Temperature	32 F to 105 F (0 C to 40 C)

1000W Inverter

Input Voltage	21 to 30VDC (24V)
No Load Current	0.75A
Frequency (Switch Selected)	50/60 Hz ± 0.05%
Output Voltage	110VAC +-5%
Output Power	1000W RMS (continuous)
Surge Power	2000W RMS (1 second)
Output Waveform	Pure Sine Wave (THD <3%)
Efficiency (Full Load / Max.)	92%
Operating Temperature	32 F to 105 F (0 C to 40 C)

WIRING DIAGRAMS

B

This appendix contains wiring diagrams for the various power options:

12VDC/115VAC 300W AC Power Inverter

24VDC/DC/DC Converter (12VDC out)

24VDC/115VAC 300W AC Power Inverter

24VDC/115VAC 1000W AC Power Inverter

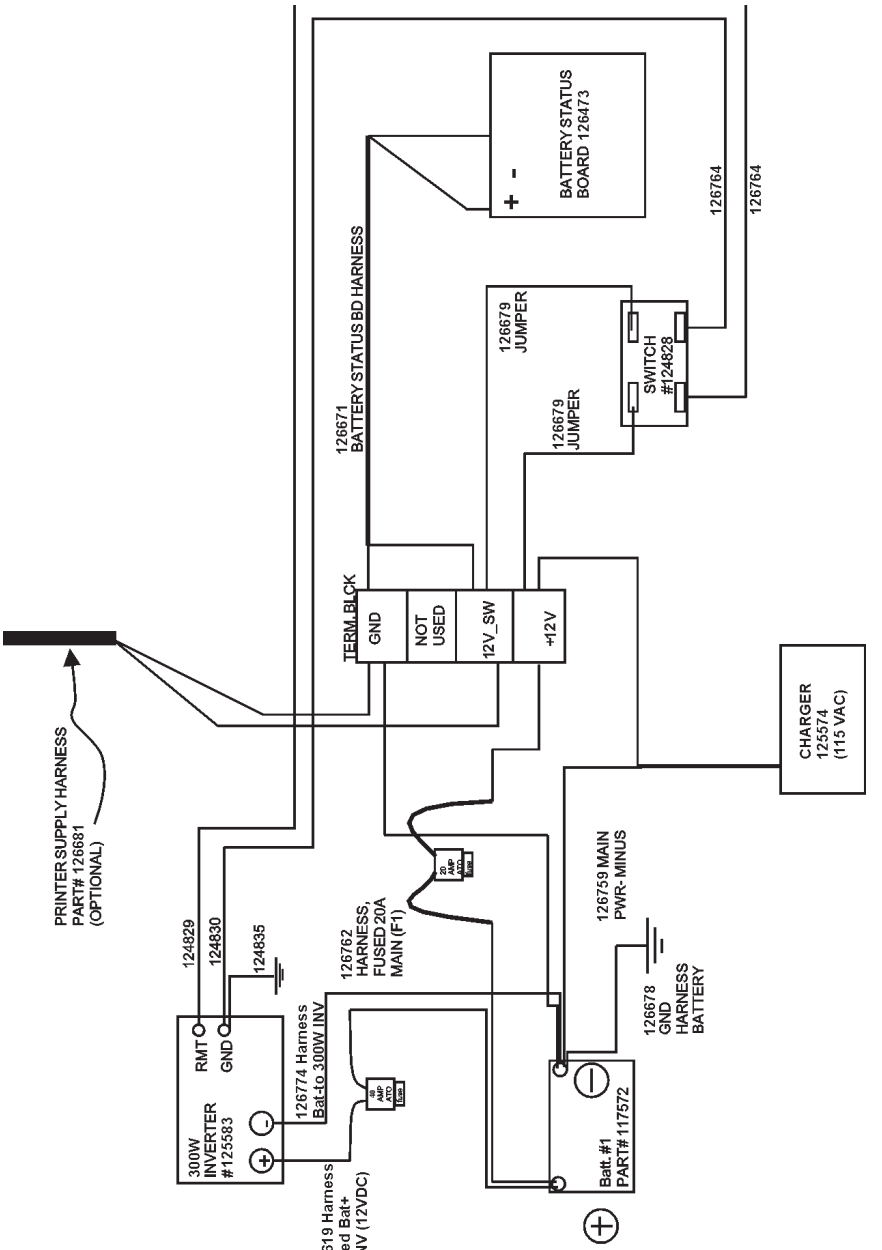
WARNING

Only qualified service personnel may install or replace the 12-volt sealed lead-acid non-venting battery.

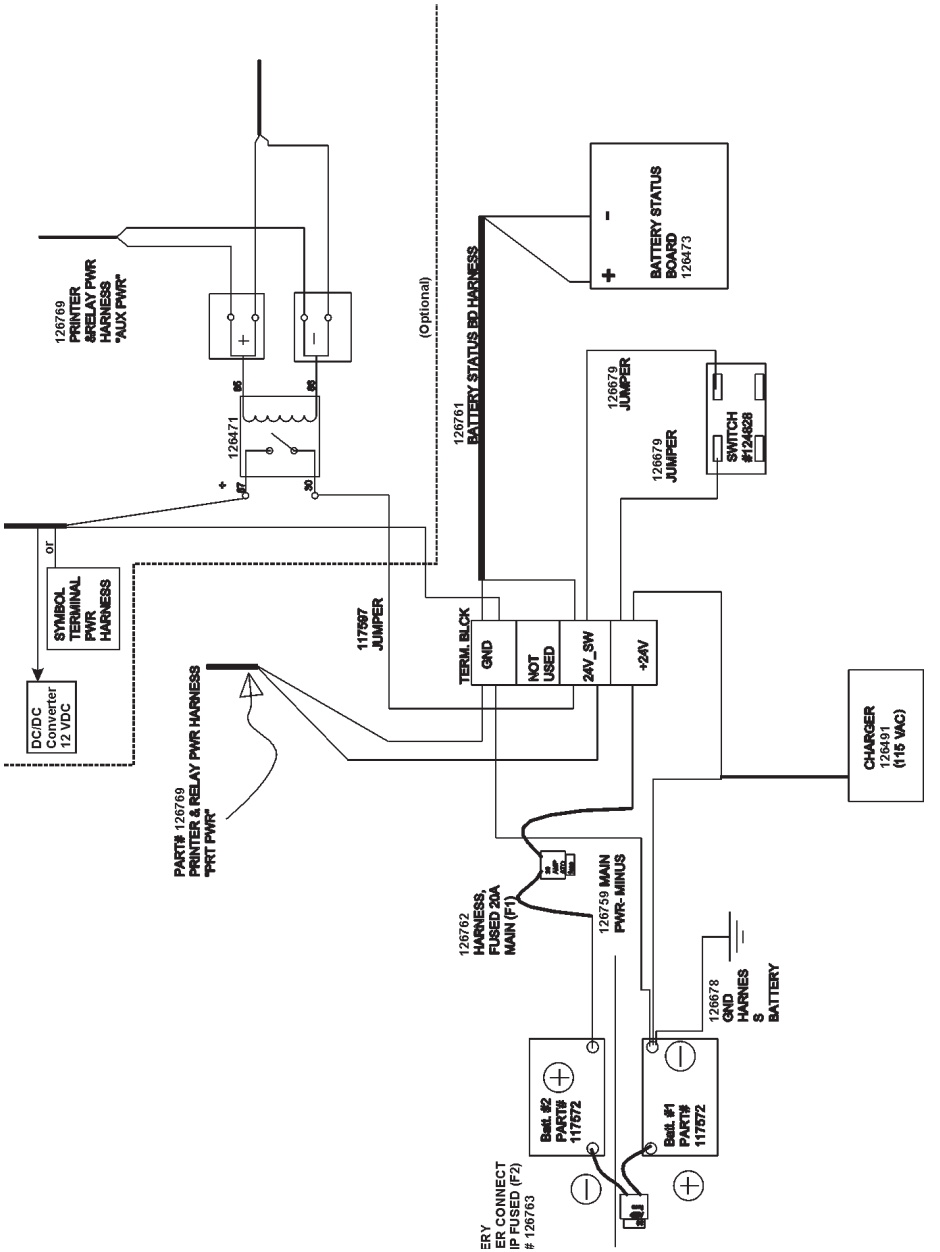
When replacing a battery, you must use the same type of battery from the same manufacturer (as the ones provided with the MWS). On 24VDC models, BOTH batteries MUST be replaced at the same time to maintain capacity match.

One or two power sparks may occur (this is normal) when installing or changing the fuses.

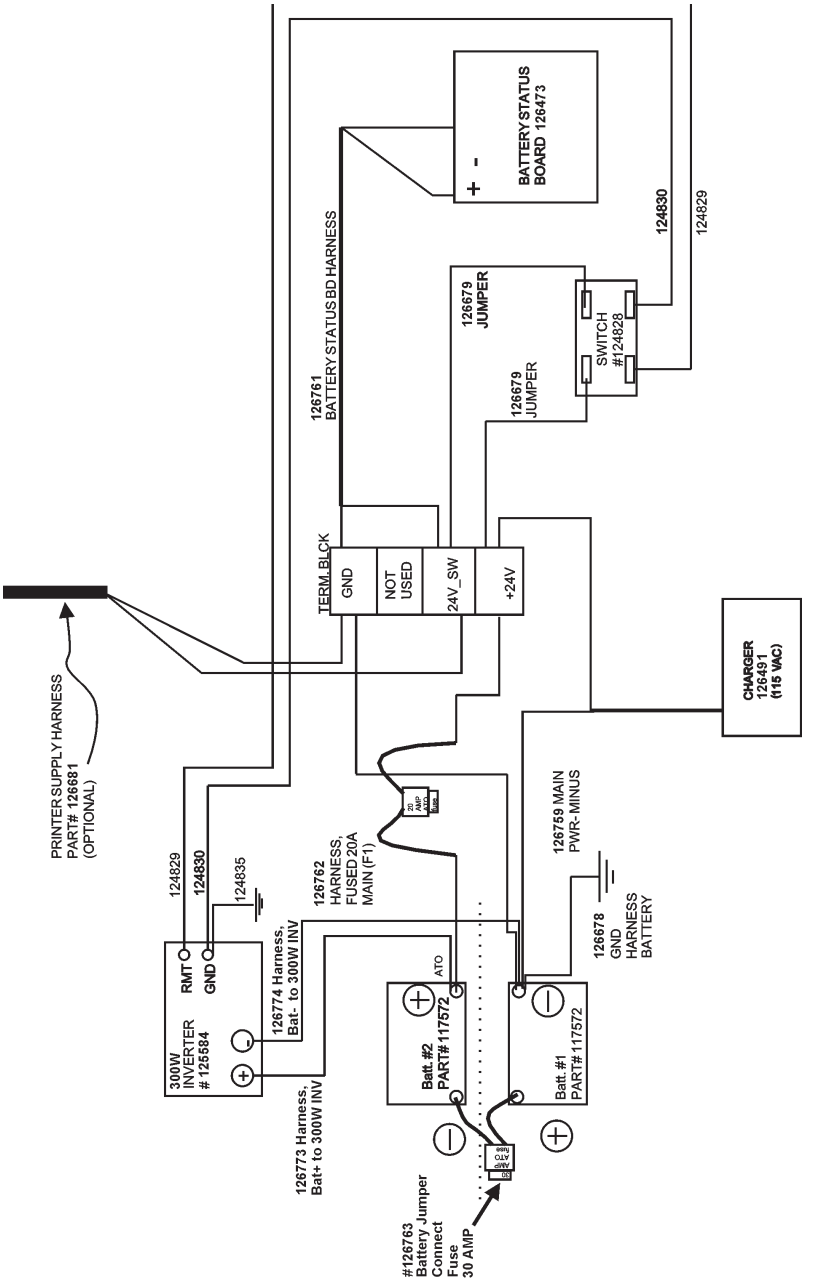
12VDC/115VAC 300W AC Power Inverter

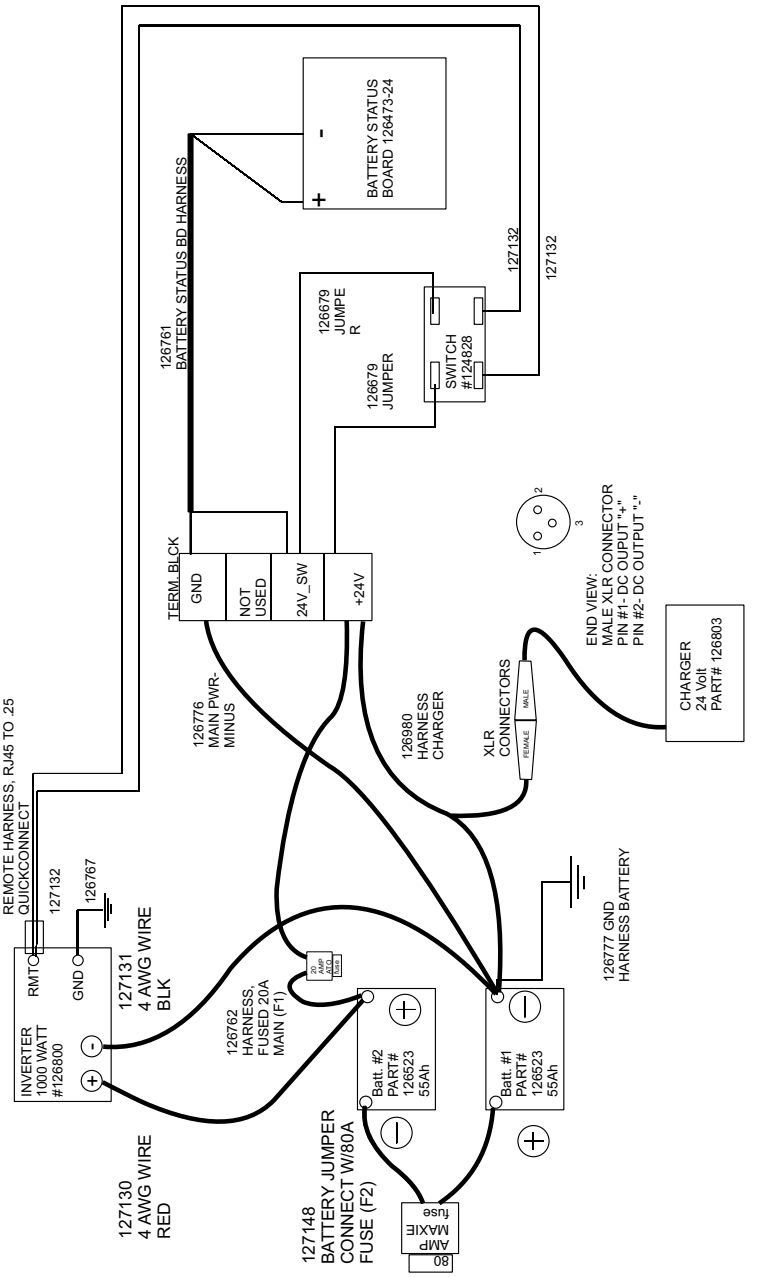


24VDC/DC/DC Converter (12VDC Out)



24VDC/115VAC 300 Watt Power Inverter




REMOTE HARNESS, RJ45 TO .25 QUICKCONNECT
127132
126767
INVERTER 1000 WATT #126800
RMT
GND
127131 4 AWG WIRE BLK
126762 HARNESS, FUSED 20A MAIN (F1)
127130 4 AWG WIRE RED
127148 BATTERY JUMPER CONNECT W/80A FUSE (F2)
Batt. #2 PART# 126523 55Ah
Batt. #1 PART# 126523 55Ah
126776 MAIN PWR-MINUS
TERM. BLCK
GND
NOT USED
24V_SW
+24V
126761 BATTERY STATUS BD HARNESS
126679 JUMPER
126679 JUMPE R
SWITCH #124828
127132
127132
BATTERY STATUS BOARD 126473-24
126980 HARNESS CHARGER
XLR CONNECTORS
MALE
FEMALE
END VIEW: MALE XLR CONNECTOR PIN #1- DC OUPUT "+" PIN #2- DC OUTPUT "-"
CHARGER 24 Volt PART# 126803
126777 GND HARNESS BATTERY

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